IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of Fernando Cuervo et al.

MECHANISM TO ALLOW DYNAMIC

TRUSTED ASSOCIATION

BETWEEN PIP PARTITIONS AND

PDPS

Serial No. 10/639,677

Filed August 13, 2003

Art Unit 2442

Examiner Oleg Survillo

Att. Docket ALC 3414

Confirmation No. 6127

APPEAL BRIEF

Mail Stop Appeal Brief Patents Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

For

This Appeal Brief is submitted in support of the Notice of Appeal dated December 31, 2009.

I. REAL PARTY IN INTEREST

The party in interest is Alcatel, by way of an Assignment recorded at Reel 014935, frame 0487.

II. RELATED APPEALS AND INTERFERENCES

Following are identified any prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or which will directly affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal:

NONE.

III. STATUS OF CLAIMS

Claims 1, 2, 6, 8, 9, 11-13, and 17-20 are on appeal.

Claims 1, 2, 6, 8, 9, 11-13, and 17-20 are pending.

No claims are withdrawn.

No claims are allowed.

Claims 1, 2, 6, 8, 9, 11-13, and 17-20 are rejected.

IV. STATUS OF AMENDMENTS

All amendments have been entered.

V. SHMMARY OF CLAIMED SUBJECT MATTER.

The following summary refers to the specification of the present application by paragraph numbers and line numbers.

The subject matter recited in independent claim 1 includes: "An apparatus that establishes services that utilize policy-enabled resources in a communications network. comprising: a first policy enforcement point [Fig. 2: PEP] residing on a network element of the communications network that performs identification (paragraph [0020], line 4) of policy-enabled resources that are available and allocates (paragraph [0020], line 6) requested policy-enabled resources to services; a first network resource controller [Fig. 2: NRC] within a domain on the communications network that makes requests, (paragraph [0020], line 8) from available policy-enabled resources, of any policy-enabled resources within a first domain required to establish a particular service, the requests from the available policy-enabled resources being separate (paragraph [0027], line 8) from the identification of the policy-enabled resources; and a first resource policy layer [Fig. 2: RPL] that establishes (paragraph [0018], line 8) the particular service and provisions (paragraph [0020], line 10) the policy-enabled resources allocated to the particular service, said first resource policy layer including a first policy decision point [Fig. 2: PEP], wherein: said first NRC acts as a trusted entity (paragraph [0032], line 3) that initiates a dynamic, trusted, policy association between said first PEP and said first PDP, said first PDP provides said first PEP with policies

upon establishment of said dynamic, trusted, policy association (paragraph [0032], lines 3-4) between said first PEP and first PDP, and when said first NRC requires resources from a second domain outside the first domain, said first NRC signals a request to a second NRC in said second domain, (paragraph [0027], lines 15-17) which acts as the trusted entity that initiates a dynamic, trusted, policy association between a second PEP in said second domain and said first PDP, said first PDP providing said second PEP (paragraph [0030], lines 4-6) with the policies upon establishment of said dynamic, trusted, policy association between said second PEP and said first PDP."

The subject matter recited in independent claim 9 includes: "A method of establishing services that utilize policy-enabled resources in a communications network, comprising: identifying, (paragraph [0020], line 4) at a first policy enforcement point [Fig. 2: PEP], policy-enabled resources within a first domain that are available and allocating (paragraph [0020], line 6) requested policy-enabled resources to services; requesting, (paragraph [0020], line 8) from available policy-enabled resources at a first network resource controller [Fig. 2: NRC] any policy-enabled resources required to establish a particular service, the requesting step being separate (paragraph [0027], line 8) from the identifying step; establishing (paragraph [0018], line 8) the particular service with a first resource policy layer [Fig. 2: RPL]; and provisioning, (paragraph [0020], line 10) to the established service, the policy-enabled resources allocated to the established service, said first resource policy layer including

a first policy decision point [Fig. 2: PDP], wherein: said first NRC acts as a trusted entity (paragraph [0032], line 3) that initiates a dynamic, trusted, policy association between said first PEP and said first PDP, said first PDP provides said first PEP with policies upon establishment of said dynamic, trusted, policy association (paragraph [0032], lines 3-4) between said first PEP and said first PDP, and when said first NRC requires resources from a second domain outside the first domain, (paragraph [0027], lines 15-17) said first NRC signals a request to a second NRC in said second domain, which acts as the trusted entity that initiates a dynamic, trusted, policy association between a second PEP in said second domain and said first PDP, said first PDP providing said second PEP (paragraph [0030], lines 4-6) with the policies upon establishment of said dynamic, trusted, policy association between said second PEP and said first PDP."

The subject matter recited in independent claim 19 includes: "An apparatus that establishes services that utilize policy-enabled resources in a communications network, comprising: a first network resource controller [Fig. 3: NRC] within a domain on the communications network, said first NRC requesting, (paragraph [0020], line 8) from available policy-enabled resources, any policy-enabled resources required to establish a particular service; a virtual first policy enforcement point [Fig. 3: PEP] residing on a network element of the communications network that is created (paragraph [0027], line 5) upon requesting the particular service, said virtual PEP

identifying (paragraph [0020], line 4) policy-enabled resources that are available and allocating (paragraph [0020], line 6) requested policy-enabled resources to the particular service: a resource policy layer [Fig. 3: RPL] that establishes the particular service and includes a policy decision point [Fig. 3: PDP], wherein the virtual PEP is provided (paragraph [0031], lines 5-6) with information to contact the PDP of the RPL in order to provision the policy-enabled resources allocated to the particular service based upon an aggregated view (paragraph [0034], lines 3-4) of resources in the first NRC."

The subject matter recited in independent claim 20 includes: "A method of establishing services that utilize policy-enabled resources in a communications network, comprising: requesting, (paragraph [0020], line 8) from available policyenabled resources at a first network resource controller [Fig. 3; NRC], any policyenabled resources required to establish a particular service; creating a virtual first policy enforcement point [Fig. 3: PEP] upon requesting the particular service; identifying, (paragraph [0020], line 4) at the virtual PEP, policy-enabled resources that are available and allocating (paragraph [0020], line 6) requested policy-enabled resources to the particular service; providing (paragraph [0031], lines 5-6) the virtual PEP with information to contact a policy decision point [Fig. 3: PDP] of a resource policy layer [Fig. 3: RPL]; establishing the particular service with a first RPL; and provisioning, to the established service, the policy-enabled resources allocated to the

particular service based upon an aggregated view (paragraph [0034], lines 3-4) of resources in the first NRC."

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection are presented for review:

- A. On pages 5-9, the Office Action rejects claims 1, 6, and 9 under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,714,515 to Marchand (hereinafter "Marchand").
- B. On pages 9-14, the Office Action rejects claims 2, 11-13, and 17-20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Marchand in view of U.S. Patent No. 7,246,165 to Williams et al (hereinafter "Williams").
- C. On page 15, the Office Action rejects claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over Marchand in view of RFC-3084 to Chan (hereinafter "Chan").

VII. ARGUMENT

Rejection of Claims 1, 6, and 9 Under 35 U.S.C. § 102(e)

The Office Action dated November 25, 2009, rejects claims 1, 6, and 9 under 35 U.S.C. § 102(e) as allegedly anticipated by Marchand.

1. Independent Claims 1 and 9.

Claim 1 recites, in part, the following subject matter: "said first NRC acts as a trusted entity that initiates a dynamic, trusted, policy association between said first PEP and said first PDP" (emphasis added). Similar subject matter appears in independent claim 9. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 4, the Office Action alleges that this language "does not, without more, further define the claimed subject matter." In particular, the Office Action declares that this recitation is "interpreted as a typical association between entities, as known in the art." Appellant respectfully submits that the specification defines these terms, for example, in paragraph [0027], as involving separation of the management of policies from the management of policy enabled resources. Thus, contrary to the Office Action, this language does further define the subject matter.

In rejecting the subject matter currently recited in claims 1 and 9, page 7 of the Office Action cites lines 7-21 of col. 4 and Figure 3 in Marchand. The Office Action fails to identify a first PEP in Fig. 3, instead relying upon the PEP in Fig. 1 that is not shown in Fig. 3. Even if one were to assume that a PEP might be linked to the block

diagram of Fig. 3, an NRC would not initiate association of a PEP with a PDP. Thus,

the Office Action does not show the recited association between the recited first PEP

and first PDP in Marchand.

Moreover, Appellant respectfully submits that such an association would not

occur because Marchand clearly lacks a NRC. Although the Office Action alleges that

an intra-domain interface [Fig. 3: 37] functions as a PDP, this allegation contradicts

line 18 of col. 5 in Marchand, where the BB [Fig. 1: 12] functions as a PDP. This

contradiction illustrates the clear error on page 4 of the Office Action, where the BB is

misidentified as the NRC. Instead, it should be listed as the PDP, further

demonstrating the flawed nature of this rejection.

Second, independent claim 1 recites, in part, the following subject matter: "when

said first NRC requires resources from a second domain outside the first domain,

said first NRC signals a request to a $\underline{\mathbf{second}\ NRC}$ in said second domain" (emphasis

added). Similar subject matter appears in independent claim 9. Appellant respectfully

submits that the references of record, alone or in combination, fail to disclose, suggest,

or teach this subject matter.

Marchand lacks a first NRC because Marchand's BB functions as a PDP, instead

of as an NRC. Marchand also lacks a second NRC because other BBs would also act as

PDPs. In addition, such communication between PDPs would resemble Fig. 1 of the

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prior art in the present application, not the claimed use of inter-domain resource requests between a first NRC in domain A and a second NRC in domain B, as depicted in Fig. 2.

On page 4, the Office Action alleges that "there is no requirement for the NRC and the PDP to reside within separate physical entities." Appellant respectfully submits that the Office Action is again ignoring the claimed subject matter, assuming that it is no different from the "prior art" depicted in Figure 1. In particular, the Office Action has refused to recognize that the NRC has any distinction from the PDP.

On page 5, the Office Action alleges that "at least the claimed PDP and PEP are logical entities." The Office Action further alleges that "no structural connections between the NRC, PEP, and PEP can exist, absent the specificity as to which physical devices acts [sic] as a PDP and a PEP." Appellant respectfully submits that these allegations reflect the general pattern of the Office Action in ignoring the recited subject matter.

For the reasons detailed above, Appellant respectfully submits that independent claims 1 and 9 are allowable over the references of record.

2. Dependent Claim 6.

Claim 6 depends from claim 1. Accordingly, claim 6 is also allowable at least due to their respective dependencies from allowable claims.

Therefore, Appellant respectfully requests withdrawal of the rejection of claims

1, 6, and 9 under 35 U.S.C. § 102(e).

B. Rejection of Claims 2, 11-13, and 17-20 Under 35 U.S.C. § 103(a)

The Office Action dated November 25, 2009, rejects claims 2, 11-13, and 17-20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Marchand in view of Williams.

Independent Claims 19 and 20.

Third, independent claim 19 recites, in part, the following subject matter: "a virtual first policy enforcement point (PEP) residing on a network element of the communications network that is created upon requesting the particular service, said virtual PEP identifying policy-enabled resources that are available and allocating requested policy-enabled resources to the particular service" (emphasis added). Similar subject matter appears in independent claim 20. Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 13, the Office Action correctly concedes that Marchand does not show this subject matter. The Office Action then attempts to remedy this admitted deficiency by applying the teachings of Williams. In particular, the Office Action alleges that the virtual GGSN of Williams is equivalent to the recited virtual PEP.

In response, Appellant respectfully submits that Williams provides for a GGSN [Fig. 8: 20] consisting of a number of virtual GGSN nodes [Fig. 8: 20] that is coupled to a PCF [Fig. 8: 21]. Thus, Williams only provides for reception of SBLP policies from

the PCF for an allocated IP address. See lines 18-20 of col. 7. Williams does not disclose a virtual PEP that identifies policy-enabled resources and then allocates requested policy enabled resources to a particular service.

These separate functions clearly are not present in Williams. The GGSN is only coupled to the PCF. In contrast, Fig. 3 of this application clearly depicts both resource discovery (NRC<--> PEP) and policy provisioning (PDP <--> PEP). Accordingly, Appellant respectfully submits that Williams clearly does not remedy the admitted deficiencies of Marchand.

For the reasons detailed above, Appellant respectfully submits that independent claims 19 and 20 are allowable over the references of record.

2. Dependent Claims 2, 11-13, 17 and 18.

Claim 2 depends from claim 1. Claims 11-13, 17, and 18 depend from claim 9.

Accordingly, claims 2, 11-13, 17, and 18 are also allowable at least due to their respective dependencies from allowable claims.

Therefore, Appellant respectfully requests withdrawal of the rejection of claims 2, 11-13, and 17-20 under 35 U.S.C. § 103(a).

C. Rejection of Claim 8 Under 35 U.S.C. § 103(a)

The Office Action dated November 25, 2009, rejects claim 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over Marchand in view of Chan.

Chan fails to remedy the deficiencies of Marchand described above. Claim 8

depends from claim 1. Accordingly, claim 8 is also allowable at least due to its

dependency from an allowable claim. Therefore, Appellant respectfully requests

withdrawal of the rejection of claim 8 under 35 U.S.C. § 103(a).

CONCLUSION

For at least the reasons discussed above, Appellant respectfully submits that the

for allowance. Therefore, Appellant respectfully requests that this Honorable Board

reverse the rejections of claims 1, 2, 6, 8, 9, 11-13, and 17-20.

Respectfully submitted, KRAMER & AMADO, P.C.

Date: March 2, 2010

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VIII. CLAIMS APPENDIX

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CLAIMS INVOLVED IN THE APPEAL:

- 1. (Previously Presented) An apparatus that establishes services that utilize policy-1 enabled resources in a communications network, comprising:
- a first policy enforcement point (PEP) residing on a network element of 3 the communications network that performs identification of policy-enabled resources 4 that are available and allocates requested policy-enabled resources to services: 5
- a first network resource controller (NRC) within a domain on the 6 communications network that makes requests, from available policy-enabled resources. 7 of any policy-enabled resources within a first domain required to establish a particular 9 service, the requests from the available policy-enabled resources being separate from
- a first resource policy layer (RPL) that establishes the particular service and provisions the policy-enabled resources allocated to the particular service, said 12

the identification of the policy-enabled resources; and

- first resource policy layer including a first policy decision point (PDP), wherein: said first NRC acts as a trusted entity that initiates a dynamic, trusted, policy 14 association between said first PEP and said first PDP. 15
- said first PDP provides said first PEP with policies upon establishment of said 16 dynamic, trusted, policy association between said first PEP and first PDP, and

when said first NRC requires resources from a second domain outside the first

domain, said first NRC signals a request to a second NRC in said second domain,

which acts as the trusted entity that initiates a dynamic, trusted, policy association 20

between a second PEP in said second domain and said first PDP, said first PDP 21

22 providing said second PEP with the policies upon establishment of said dynamic.

trusted, policy association between said second PEP and said first PDP. 23

(Previously Presented) The apparatus as defined in claim 1, wherein said first 2.

PEP comprises a plurality of virtual PEPs, each virtual PEP being associated to a

respective service.

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3-5. (Canceled)

6. (Previously Presented) The apparatus as defined in claim 1, wherein the

apparatus further comprises:

a second RPL associated with the second domain comprising the second PEP.

7. (Canceled)

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(Previously Presented) The apparatus as defined in claim 1, wherein resource 8.

capability information descriptors are used for resource discovery and policy

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 (Previously Presented) A method of establishing services that utilize policyenabled resources in a communications network, comprising:

identifying, at a first policy enforcement point (PEP), policy-enabled resources
 within a first domain that are available and allocating requested policy-enabled

5 resources to services:

requesting, from available policy-enabled resources at a first network resource controller (NRC) any policy-enabled resources required to establish a particular service, the requesting step being separate from the identifying step;

establishing the particular service with a first resource policy layer (RPL); and
provisioning, to the established service, the policy-enabled resources allocated to
the established service, said first resource policy layer including a first policy decision
point (PDP), wherein:

said first NRC acts as a trusted entity that initiates a dynamic, trusted, policy association between said first PEP and said first PDP,

said first PDP provides said first PEP with policies upon establishment of said dynamic, trusted, policy association between said first PEP and said first PDP, and when said first NRC requires resources from a second domain outside the first domain, said first NRC signals a request to a second NRC in said second domain, which acts as the trusted entity that initiates a dynamic, trusted, policy association

20 between a second PEP in said second domain and said first PDP, said first PDP

21 providing said second PEP with the policies upon establishment of said dynamic,

trusted, policy association between said second PEP and said first PDP.

(Canceled)

11. (Previously Presented) The method as defined in claim 9, wherein virtual PEPs

of the first PEP are provisioned to provide resource services.

12. (Previously Presented) The method as defined in claim 11, wherein the virtual

2 PEPs are provisioned to provide services in said second domain.

13. (Previously Presented) The method as defined in claim 12, wherein said first

2 PEP and said second PEP are provisioned with the same service by said first PDP.

14-16. (Canceled)

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17. (Previously Presented) The apparatus as defined in claim 1, wherein the first

2 PEP and the second PEP are virtual PEPs created upon request for a particular service

3 by one of the first NRC and the second NRC.

1 18. (Previously Presented) The method as defined in claim 9, wherein the first PEP

and the second PEP are virtual PEPs created upon request for a particular service by

one of the first NRC and the second NRC

- (Previously Presented) An apparatus that establishes services that utilize policy-
- 2 enabled resources in a communications network, comprising:
- a first network resource controller (NRC) within a domain on the communications network, said first NRC requesting, from available policy-enabled
- resources, any policy-enabled resources required to establish a particular service;
- a virtual first policy enforcement point (PEP) residing on a network element of
 the communications network that is created upon requesting the particular service.
 - said virtual PEP identifying policy-enabled resources that are available and allocating
- 9 requested policy-enabled resources to the particular service;
- a resource policy layer (RPL) that establishes the particular service and includes
 a policy decision point (PDP), wherein the virtual PEP is provided with information to
 contact the PDP of the RPL in order to provision the policy-enabled resources allocated
- $_{\rm 13}$ $\,$ to the particular service based upon an aggregated view of resources in the first NRC.
- 1 20. (Previously Presented) A method of establishing services that utilize policy-
- 2 enabled resources in a communications network, comprising:
- requesting, from available policy-enabled resources at a first network resource

- controller (NRC), any policy-enabled resources required to establish a particular
- service;
- creating a virtual first policy enforcement point (PEP) upon requesting the creating a virtual first policy enforcement point (PEP) upon requesting the
- s identifying, at the virtual PEP, policy-enabled resources that are available and
- 9 allocating requested policy-enabled resources to the particular service;
- providing the virtual PEP with information to contact a policy decision point

 (PDP) of a resource policy layer (RPL);
- establishing the particular service with a first resource policy layer (RPL); and
- provisioning, to the established service, the policy-enabled resources allocated to
- the particular service based upon an aggregated view of resources in the first NRC.

IX. EVIDENCE APPENDIX

A copy of the following evidence 1) entered by the Examiner, including a statement setting forth where in the record the evidence was entered by the Examiner, 2) relied upon by the Appellant in the appeal, and/or 3) relied upon by the Examiner as to the grounds of rejection to be reviewed on appeal, is attached:

NONE.

X. RELATED PROCEEDINGS APPENDIX

Copies of relevant decisions in prior or pending appeals, interferences or judicial proceedings, known to Appellant, Appellant's representative, or the Assignee, that may be related to, or which will directly affect or be directly affected by or have a bearing upon the Board's decision in the pending appeal are attached:

NONE.